

UIAA Seminar for Training Standards Working Group and deputies: 19-21/9/11

Seminar report

The UIAA Mountaineering Commission arranged a seminar to follow its meeting in Arco (17-18th September). This meeting attracted several new experts who could deputise for the nominated member when necessary. We also welcomed a couple of guests for one or several days of the event, which was hosted by the Italian Alpine Club (CAI) and its equipment testing facility at Padua, near Venice.

Attendees (in alphabetical order):

Mike Galbraith: ACC, Canada (Guest, 3 days)
Patrick Lamarque: FFCAM, France
Steve Long: BMC/MLT, UK
Claudio Melchiorri: CAI, Italy
Gabriel Porti: FEDME, Spain
Alberto Rampini: CAI (+CAAI), Italy
Matjaž Šerkezi: PZS, Slovenia
Sergey Vedenin: RMF, Russia
Benoit Waller: ENEQ, Canada
Ron Whitehead, ENEQ, Canada
Phil Wickens: BMC, UK (Guest, 1 day)

1. Introduction

The 2011 seminar for Training Standards had two main objectives:

- 1) To widen the pool of available experts by inviting one additional expert from each of the current TSWG member federations
- 2) To compare and contrast, in a practical context, accepted best practice for teaching rock climbing in a variety of settings (single and multi-pitch, with and without fixed protection) in order to highlight and address areas of potential difficulty when providing advice or validation for federation training schemes.

Day	Date	Time	Activity
Monday	19/09/2011	morning:	Visit to Padua (CAI Safety Commission)
Monday	19/09/2011	afternoon:	Visit to Padua (CAI Safety Commission)
Tuesday	20/09/2011	morning:	practical activities - 1
Tuesday	20/09/2011	afternoon:	practical activities - 2
Wednesday	21/09/2011	morning:	practical activities - 3
Wednesday	21/09/2011	afternoon:	debrief, free/departures

Day 1: Padua. This was hosted by the Safety Commission of CAI, some of whom are also members of the UIAA Safety Commission:

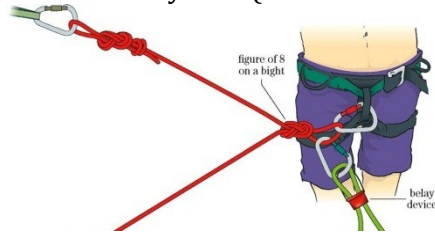
- Giuliano Bressan (President of the CAI Safety Commission, member of the CAI National Mountaineering School, member of CAAI)

- Vittorio Bedogni (member of the UIAA SafeComm, member of the CAI SafeComm, Instructor)
- Carlo Zanantoni (past-member of the UIAA SafeComm, member of the CAI SafeComm, member of the CEN Commission (European commission), CAAI)
- Sandro Bavaresco (Technician, CAI Instructor)

The group were shown the various apparatus that test specific areas of the standard for ropes, along with other test rigs such as a large historic device for testing piton placements (which had demonstrated the efficacy of “offset” pitons), equipment for testing slings, carabiner and ropes measuring forces vs. deformation, and an impact tester for climbing helmets. During this session, demonstrations were given using the machine for creating repeated cycles to test rope wear during normal belaying activities, and also a “rough and ready” demonstration of how much rope strength is affected by water saturation. The tests were not scientifically valid as normally 5 minutes recovery has to be left between each drop, but it still gave a clear indication of the rope’s diminishing recovery from repeated drops until failure (8th drop when dry). The saturated rope failed after half the number of drops (i.e. after 4 drops), as predicted, although this was doubly unscientific as it failed at the knot rather than at the orifice (simulating a karabiner), which is where the failure is required in order to be validated. However it was a useful visual demonstration for the delegates.

After lunch, drop tests were conducted on an outdoor tower that allows leader falls to be simulated. This allowed the group to compare various belay methods such as the

1. semi-direct system (favoured in the UK),



2. Direct belay (common in Europe)



3. Indirect belay (used more often with “waist belays” –winter mountaineering)



Method 3 proved to be unsuitable for normal climbing use with a belay plate.

Method 1 enabled a “worst case scenario” of a fall from above the belay with no runners placed to be held, but only by an attentive and competent belayer.

Method 2 enabled the “worst case scenario to be held fairly easily without gloves as long as the anchors are sound.



Later, methods 1 and 2 were tested for an upwards pull by a lead climber falling heavily from above a runner. In this



Italian Hitch

situation, method 1 again required an attentive belayer with the locking hand away from the rock face, as the belayer is pulled into the air. A variation using a runner clipped into one of the belay bolts also resulted in an upward pull in this scenario but made it easier to hold a worst case scenario where no other runners were placed before a leader fall. The belayer is also pulled upwards with this method when holding normal leader falls. With method 2 the Italian Hitch is pulled sharply upwards, but it was relatively easy to hold the fall, as the belayer is not pulled upwards or into the rock face. It should be stressed however that for this system it is vital to use screwgate karabiners on all anchors and also to use anchors that can withstand an upwards pull (i.e. normally piton/bolt/thread).

There were 3 conclusions from these tests:

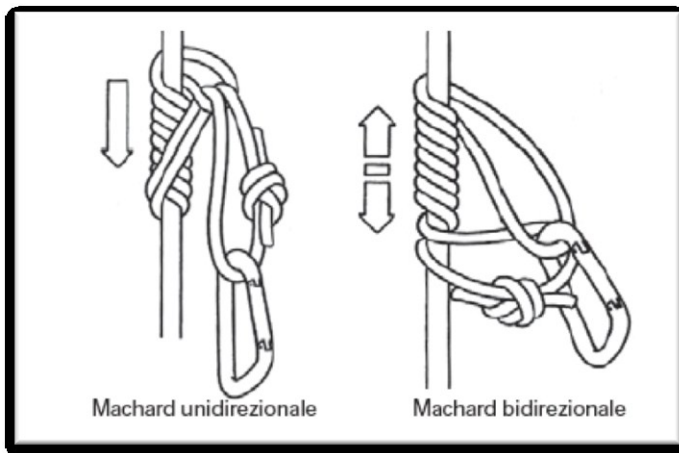
1. Improvising fall simulations needs careful thought, and a reasonably large belay platform, in order to avoid injuries in certain loading situations.
2. For heavy leader falls with a runner above the belay it is important that the anchor can withstand an upward pull, or for method 1 it should be situated several metres above the belayer, since the belayer may well be pulled above the anchor.
3. Methods 1 and 2 both have advantages and disadvantages, and neither should be dismissed out of hand by advocates of the other system. This latter was a recurrent thread throughout the seminar, i.e. the role of the TS expert is not to pass judgement over specific techniques within another federation’s climbing methodology, but instead to see if there is (a) consistency in how the various advocated systems are taught and assessed and (b) an awareness of the pros and cons of any system in order to allow an informed choice by the climber.

Day 2: Nago. The delegates visited a popular sport climbing crag above the village of Nago. The structure of the day was to split into pairs and threes for climbing together at suitable sectors, and then to meet for discussion based on points or queries noted, then to split up for more climbing.

Learning points:

1. Any climbing course is most effective when learning is contextualised, i.e. by students actually climbing. There is always a danger that this important aspect of the course becomes marginalised due to time pressure. The problem is that real understanding only comes through practice, which is why time for real climbs must be built into any instructional course.
2. Attempts to construct a definitive list of accepted/required knots and techniques proved controversial; conversely it was also difficult to reach universal agreement on techniques that all felt would be unacceptable. One proposal was that courses should advocate that manufacturer’s instructions are followed. Even this proved hard to define though as some advice is fairly routine (e.g. recommended life span)

- whereas other advice is about specific techniques that other manufacturers may or may not advocate: it is unrealistic to expect instructors to read every leaflet for every item on the market. Consequently manufacturers with more comprehensive brochures (e.g. Petzl) can easily become confused with a technical manual – should users of Camp or Black Diamond follow Petzl brochure advice? Instead a more positive way forward will be for dialogue between the UIAA Safcom and Training Standards in order for more generic advice to be disseminated.
3. Discussion about legal liability raised the following query: if a manufacturer advocates against a certain technique, surely the instructor is legally at fault if giving conflicting advice? SL insisted that a more positive viewpoint is that the manufacturer's advice is naturally the starting point but should not be slavishly followed if contradictory evidence has come to light. Liability assumes (a) an accident occurs and (b) the accident was caused fully or partially by this specific advice that was different to the manufacturer's advice. Safcom advice takes precedence over specific manufacturers.
 4. Nonetheless some agreement was reached over a basic repertoire of techniques and knots that should normally be included within a climbing course. This could be collated as guidance for TS mentors/validators rather than fixed rules.
 5. The definition of sport climbing vs. climbing on fixed gear was discussed. It was felt that for sport climbing there are elements of coaching climbing and also perhaps the minimum climbing grade, that are not currently covered in the standard (currently defined as fixed protection).
 6. Another interesting observation (which can be easily addressed by the TSWG with a pdf showing photos and standardised names) is that nomenclature is not yet standardised.



For example, the UK's "klemheist" is known elsewhere as the "French Prusik" or "Machard (uni-directional)".

The UK's "French Prusik" is known elsewhere (though occasionally in the UK!) as the "Machard (bi-directional)".

The Italian hitch was indeed invented in Italy and is known by this name. It was demonstrated at a UIAA meeting to Herr Münter, who later popularised it.

Day 3: Saint Paolo. Various multi-pitch climbs were tackled by teams climbing as groups of 3, exploring issues such as stance management, climbing in parallel vs. series. Debriefs for this were necessarily informal as several group members had to leave early in order to catch flights. There was some debate over length of route for UIAA standard: climbers should be assessed at multi-pitch Grade V and routes over 200m - but not necessarily both criteria on the same climb.

The delegates would like to thank CAI and in particular Claudio Melchiorri for the hospitality and support given to the seminar.

Steve Long, 27/9/11